

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

TRANSLATION
PCT

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

(PCT Rule 43bis.1)

		Date of mailing (day/month/year)	See Form PCT/ISA/210 (sheet 2)
Applicant's or agent's file reference 9500Hear3045		FOR FURTHER ACTION See paragraph 2 below	
International application No. PCT/EP2004/053632	International filing date (day/month/year) 21.12.2004	Priority date (day/month/year) 23.12.2003	
International Patent Classification (IPC) or both national classification and IPC C07D471/04, C07D493/14			
Applicant TESA AG			

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE
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International application No.

PCT/EP2004/053632

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
 a sequence listing
 table(s) related to the sequence listing
 - b. format of material
 in written format
 in computer readable form
 - c. time of filing/furnishing
 contained in the international application as filed.
 filed together with the international application in computer readable form.
 furnished subsequently to this Authority for the purposes of search.
3. In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																									
<p>1. Statement</p> <table> <tr> <td align="center">Novelty (N)</td> <td align="center">Claims</td> <td><u>1-13</u></td> <td align="center">YES</td> </tr> <tr> <td></td> <td align="center">Claims</td> <td></td> <td align="center">NO</td> </tr> <tr> <td align="center">Inventive step (IS)</td> <td align="center">Claims</td> <td><u>1-13</u></td> <td align="center">YES</td> </tr> <tr> <td></td> <td align="center">Claims</td> <td></td> <td align="center">NO</td> </tr> <tr> <td align="center">Industrial applicability (IA)</td> <td align="center">Claims</td> <td><u>1-13</u></td> <td align="center">YES</td> </tr> <tr> <td></td> <td align="center">Claims</td> <td></td> <td align="center">NO</td> </tr> </table>		Novelty (N)	Claims	<u>1-13</u>	YES		Claims		NO	Inventive step (IS)	Claims	<u>1-13</u>	YES		Claims		NO	Industrial applicability (IA)	Claims	<u>1-13</u>	YES		Claims		NO
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<p>2. Citations and explanations:</p> <p>1 Main claim 1 of the present application claims an adhesive film comprising a blend made of a rubber and of a thermoplastic. The blend is microphase-separated and has two softening points, with a storage modulus G' at 23°C of more than 10⁷ Pas, a loss modulus G" at 23°C of more than 10⁶ Pas and a crossover (intersection of curves of G' and G") below 125°C.</p> <p>Main claim 10 claims the use of this type of film for the adhesive bonding of electrical modules to card products.</p> <p>Main claim 11 claims a process for production of this type of film.</p> <p>2 Reference is made to the following documents:</p> <p>D1: DE 199 48 560 A1 (ATP ALLTAPE KLEBETECHNIK) 23 August 2001</p> <p>D2: US 2002/007014 A1 (HYDE PATRICK D ET AL) 17 January 2002</p> <p>3 Document D1 discloses (claims 1, 2; example 1; column 2, lines 26-32) an adhesive film for the adhesive bonding of electrical modules to card products, the film being based on a blend of an elastomeric acrylate and a thermoplastic copolyamide.</p> <p>The blend would appear to be a single phase and would appear to have only one softening point. D1 does not mention storage</p>																									

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

modulus or loss modulus.

The subject matter of the current main claims 1, 10 and 11 would therefore appear to be novel over D1 (PCT Article 33(2)).

- 4 Document D2 discloses (claims 1-3, 18) an adhesive film which is based on a microphase-separated blend of a rubber-based pressure-sensitive adhesive and a thermoplastic polymer.

Since the blend has two phases, it should also have two softening points. However, D2 does not mention a storage modulus or loss modulus.

The subject matter of the current main claims 1, 10 and 11 would therefore appear to be novel over D2 (PCT Article 33(2)).

- 5 Document D1 is considered to be the prior art closest to the subject matter of claim 1.

Since no suitable comparative examples are available that could show an effect unexpected with respect to D2 resulting from the different technical features (phase separation; selection of certain storage moduli and certain loss moduli), the problem addressed by the present invention can only be considered that of provision of a further adhesive film.

Document D2 discloses microphase-separated adhesive films based on blends of rubber and thermoplastic polymers. However, D2 does not mention the matching of the blends to the moduli proposed in claim 1. Since this feature is not obvious to a person skilled in the art, the subject matter of claim 1 would appear to involve an inventive step (PCT Article 33(3)).

- 6 Subclaims 2-9, 12 and 13 are dependent on claims 1 and 11 and therefore likewise meet the PCT requirements for novelty and inventive step.

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1. Statement

Novelty (N)	Claims <u>1-13</u>	YES
Claims	_____	NO
Inventive step (IS)	Claims <u>1-13</u>	YES
Claims	_____	NO
Industrial applicability (IA)	Claims <u>1-13</u>	YES
Claims	_____	NO

2. Citations and explanations:

- 1 Main claim 1 of the present application claims an adhesive film comprising a blend made of a rubber and of a thermoplastic. The blend is microphase-separated and has two softening points, with a storage modulus G' at 23°C of more than 10⁷ Pas, a loss modulus G" at 23°C of more than 10⁶ Pas and a crossover (intersection of curves of G' and G") below 125°C.

Main claim 10 claims the use of this type of film for the adhesive bonding of electrical modules to card products.

Main claim 11 claims a process for production of this type of film.

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